

CLAIMS

WHAT IS CLAIMED IS:

1. An application management system comprising:
 - a first computer configured to host an application;
 - 5 a user terminal;
 - a communication network, said first computer communicatively associated with said user terminal through said communication network;
 - an computer-executable application, wherein at least a portion of said application is executed by said first computer;
 - 10 a computer-executable timeout function hosted by said first computer, said timeout function configured to cause said first computer to terminate said application if a keep-alive input is not received by said first computer within a timeout period; and
 - a computer-executable keep-alive function hosted by said user terminal, said keep-alive function configured to cause said user terminal to transmit a message to said first computer within a period based on said timeout period.
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2. The application management system according to claim 1, wherein said message is said keep-alive input.
- 20 3. The application management system according to claim 2, wherein said first computer is a server, and said user terminal establishes communication with said first computer by sending said first computer a session initiation request.
4. The application management system according to claim 2, wherein said keep-alive function
 - 25 collects timeout information related to said application.
5. The application management system according to claim 4, wherein

said keep-alive input has a content and a format, and
at least one of said content and said format is based on said timeout information.

6. The application management system according to claim 4, wherein said timeout information
5 includes information related to the timeout period.

7. The application management system according to claim 4, wherein:
said first computer maintains an application timeout clock, said timeout function terminating
said application when said timeout clock reaches a specified state and said application
10 timeout clock being reset when said first computer receives a keep-alive input, and
said timeout information includes information related to a current state of said timeout clock.

8. The application according to claim 2, wherein said keep-alive function maintains a keep-
alive function timeout clock and said keep-alive input is transmitted to said first computer
15 when said keep-alive function timeout clock reaches a specified state.

9. The application according to claim 8, wherein:
said first computer maintains an application timeout clock, said timeout function terminating
said application when said timeout clock reaches a specified state and said application
20 timeout clock being reset when said first computer receives a keep-alive input,
said keep-alive function collects timeout information related to said application, said timeout
information including information related to a current state of said application timeout
clock, and
said keep-alive function timeout clock is set based on said timeout information.

10. An application management system according to claim 9, wherein said keep-alive function
timeout clock is reset when the application timeout clock has been reset.

11. An application management system according to claim 9, wherein said keep-alive function timeout clock is reset when the user performs an action to keep said application alive.
- 5 12. The application management system according to claim 2, wherein said keep-alive function causes a query to be sent to a user seeking authorization from said user to transmit said keep-alive input to said first computer.
13. The application management system according to claim 2, wherein said keep-alive function
10 is launched upon the occurrence of a triggering event.
14. The application management system according to claim 13, wherein said triggering event is launching of a second computer-executable application.
- 15 15. The application management system according to claim 2, wherein said keep-alive function is launched when a user performs an activation action.
16. The application management system according to claim 1, wherein said message is a status query message related to said application.
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17. The application management system according to claim 16, wherein said first computer is a server, and said user terminal establishes communication with said first computer by sending said first computer a session initiation request.
- 25 18. The application management system according to claim 16, wherein said keep-alive function collects timeout information related to said application.

19. The application management system according to claim 18, wherein said status query message includes information identifying said application.

20. The application management system according to claim 18, wherein said timeout information includes information related to the timeout period.

21. The application management system according to claim 18, wherein:
said first computer maintains an application timeout clock, said timeout function terminating said application when said timeout clock reaches a specified state, and
said timeout information includes information related to a current state of said timeout clock.

22. The application according to claim 16, wherein said keep-alive function maintains a keep-alive function timeout clock and said status query message is transmitted to said first computer when said keep-alive function timeout clock reaches a specified state.

23. The application according to claim 22, wherein:
said first computer maintains an application timeout clock, said timeout function terminating said application when said timeout clock reaches a specified state and said application timeout clock being reset when said first computer receives a keep-alive input,
said keep-alive function collects timeout information related to said application, said timeout information including information related to a current state of said application timeout clock, and
said keep-alive function timeout clock is set based on said timeout information.

24. An application management system according to claim 23, wherein said keep-alive function timeout clock is reset if the response of the first computer to the status query message indicates that said application is alive.

25. The application management system according to claim 16, wherein said keep-alive function is launched upon the occurrence of a triggering event.

5 26. The application management system according to claim 25, wherein said triggering event is launching of a second computer-executable application.

27. The application management system according to claim 16, wherein said keep-alive function is launched when a user performs an activation action.

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28. The application management system according to claim 16, wherein said keep-alive function informs said user of the status of said application.

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29. The application management system according to claim 1, wherein said user terminal is a second computer.

30. A method of managing an application, at least a portion of said application being executed by a first computer and said application being subject to termination by said first computer if said first computer does not receive a keep-alive input within an application timeout period, said method comprising:

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by a keep-alive function hosted by a user terminal, collecting application timeout information related to said application;

formulating a keep-alive input;

transmitting said keep-alive input from said user terminal to said first computer.

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31. The method of managing an application according to claim 30, wherein said application timeout information includes information related to an application timeout clock maintained by said first computer and related to said application.

5 32. The method of managing an application according to claim 31, wherein said keep-alive input is transmitted based on a state of said application timeout clock.

10 33. The method of managing an application according to claim 31, further including, by said keep-alive function, maintaining a keep-alive function timeout clock related to said application timeout clock, and wherein said keep-alive input is transmitted based on a state of said keep-alive function timeout clock.

15 34. The method of managing an application according to claim 30, further including launching said keep-alive function.

35. The method of claim 30, wherein said application timeout information includes information related to one of a required content or a required format for said keep-alive input, and said keep-alive input is formulated based on said application timeout information.

20 36. A method of managing an application, at least a portion of said application being executed by a first computer and said application being subject to termination by said first computer if said first computer does not receive a keep-alive input within an application timeout period, said method comprising:

25 by a keep-alive function hosted by a user terminal, collecting application timeout information related to said application;

formulating a status query message identifying said application;

transmitting said status query message from said user terminal to said first computer.